

What is claimed is:

1. An optical chassis of plating film reflection comprises:

a shell body, which has a hollow accommodation space, wherein a pair of opposite inside walls are defined;

5 plural reflection elements, which is provided inside the accommodation space of the shell body with appropriate, corresponding angles and may make appropriate reflections on the light that enters into the shell;

a lens set, which may focus the light reflected by the reflection elements; and

10 an imaging apparatus, through which the focused light may be imaged on it and be transferred into image data;

the characteristics are:

15 several inter-corresponding reflection planes, formed on the two corresponding inside walls of the accommodation space of the shell body, provide the installation for the plural reflection elements. And, the plating films of reflection materials provided directly on the reflection planes construct the reflection elements.

20 2. An optical chassis of plating film reflection according to claim 1, wherein a light source provided on an appropriate position of an upper side of said shell body is further included.

3. An optical chassis of plating film reflection according to claim 1, wherein said imaging apparatus is a charge-coupling device (CCD).

25 4. An optical chassis of plating film reflection according to claim 1, wherein said reflection planes are directly formed on two inside walls of said shell body by a method of plastic injection forming to one body.

5. An optical chassis of plating film reflection according to claim 1, wherein said reflection planes have been processed with surface polishing.

6. An optical chassis of plating film reflection according to claim 1, wherein said plating films are further coated with protection materials.

30 7. An optical chassis of plating film reflection according to claim 6, wherein

said protection material is macromolecular polymer with high light transmittance.

8. An optical chassis of plating film reflection according to claim 1, wherein said materials of said plating films may be one kind of the following materials: silver, chromium, aluminum, platinum and their alloys.

9. An optical chassis of plating film reflection according to claim 1, wherein said plating films are directly arranged on said reflection planes by one of following methods: evaporating sputtering, sputtering and chemical deposition.

10. An optical chassis of plating film reflection according to claim 1, wherein said shell body comprises a lid body and a major body.

11. An optical chassis of plating film reflection according to claim 10, wherein said lid body is provided with a light source supporting platform and a narrow long diaphanous groove for the provision of light which enters into said shell body.

12. An optical chassis of plating film reflection according to claim 10, wherein a light source supporting platform is further arranged on said major body to support a light source, and a narrow long diaphanous groove is arranged on said lid body corresponding to the position of the light source supporting platform for the provision of light which enters into said shell body.

13. An optical chassis of plating film reflection according to claim 10, wherein at least one open hole in assistance for off-die is further arranged on the bottom of said major body.

14. An optical chassis of plating film reflection according to claim 10, wherein several corresponding button-up structures, arranged respectively on the connection positions of each major body and lid body, directly buckle and fasten said two bodies together on a fixed position.

15. An optical chassis of plating film reflection includes:

a shell body, which has a hollow accommodation space, wherein two opposite inside walls are defined and several inter-corresponding reflection planes are formed on two opposite inside walls with

predetermined angles and positions; and

plural plating films, which are constructed by directly arranging reflection materials on several reflection planes and make appropriate reflections and direction changes on the light that enters into the shell body.

16. A manufacturing procedure for manufacturing said optical chassis of plating film reflection according to claim 15 includes following steps:

(A)shaping said shell body; and

(B)plating at least one layer of reflection material on several reflection planes of said shell body to form said plating films.

17. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein a step is further included after step (A):

(A1)surface smoothness treatment aiming on said reflection planes of said shell body.

18. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein said surface smoothness treatment is burnishing process.

19. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein a step is further included after step (A):

(A2)determining the layer number of plating films according to the requirement of light reflectivity.

20. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein said materials of said plating films may be one kind of the following materials: silver, chromium, aluminum, platinum and their alloys.

21. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein said plating films are directly arranged on said reflection planes by one of following methods: evaporating sputtering, sputtering and chemical deposition.

22. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein a step is further included after step (B):

(B1) coating protection materials on said plating films to protect said plating films.

23. A manufacturing procedure of said optical chassis of plating film reflection according to claim 22, wherein said protection material is macromolecular polymer with high light transmittance.

24. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein said reflection planes are directly formed on two inside walls of said shell body by a method of plastic injection forming to one body.

25. A manufacturing procedure of said optical chassis of plating film reflection according to claim 16, wherein said shell body comprises a lid body and a major body.

26. A manufacturing procedure of said optical chassis of plating film reflection according to claim 25, wherein said lid body is provided with a light source supporting platform and a narrow long diaphanous groove for the provision of light which enters into said shell body.

27. A manufacturing procedure of said optical chassis of plating film reflection according to claim 25, a light source supporting platform is further arranged on said major body to support a light source, and a narrow long diaphanous groove is arranged on said lid body corresponding to the position of the light source supporting platform for the provision of light which enters into said shell body.

28. A manufacturing procedure of said optical chassis of plating film reflection according to claim 25, wherein at least one open hole in assistance for off-die is further arranged on the bottom of said major body.

29. A manufacturing procedure of said optical chassis of plating film reflection according to claim 25, wherein several corresponding button-up structures, arranged respectively on the connection positions of each major body and lid body, directly buckle and fasten said two bodies together on a

fixed position.